

Amendments to the claims

Please replace the previously-pending claims with the following claim listing.

1. (Currently amended) An isolated, modified, human ADAMTS4 protein with improved stability ~~compared to a naturally occurring, full-length ADAMTS4 protein~~, said modified ADAMTS4 protein ~~differing from the naturally occurring, full-length ADAMTS4 protein by at least one amino acid~~ comprising a substitution of glutamine for glutamate at position 362 and a disintegrin domain.
- 2-5. (Canceled)
6. (Currently amended) The isolated, modified, human ADAMTS4 protein of claim 1, wherein said protein comprises a peptide tag.
7. (Canceled)
8. (Currently amended) The isolated, modified, human ADAMTS4 protein of claim [[7]] 1, further comprising a deletion of all or a portion of an ADAMTS4 spacer domain.
9. (Currently amended) ~~An~~ The isolated, modified, human ADAMTS4 protein of claim 1 ~~with improved stability compared to an ADAMTS4 protein having an amino acid sequence recited in SEQ ID NO:15, said modified ADAMTS4 protein comprising an the amino acid sequence selected from the group consisting of SEQ ID NOS:17, 19, 22, 24, 26, 27, 29, 31, 32, 40, and 46-53.~~
- 10-20. (Canceled)
21. (New) The isolated, modified, human ADAMTS4 protein of claim 1, said modified ADAMTS4 protein comprising the amino acid sequence of SEQ ID NO: 31.
22. (New) The isolated, modified, human ADAMTS4 protein of claim 1, said modified ADAMTS4 protein comprising the amino acid sequence of SEQ ID NO: 32.
23. (New) The isolated, modified, human ADAMTS4 protein of claim 1, said modified ADAMTS4 protein comprising the amino acid sequence of SEQ ID NO:40.

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24. (New) The isolated, modified, human ADAMTS4 protein of claim 1, said modified ADAMTS4 protein comprising the amino acid sequence of SEQ ID NO:50.
25. (New) The isolated, modified, human ADAMTS4 protein of claim 1, said modified ADAMTS4 protein comprising the amino acid sequence of SEQ ID NO:51.
26. (New) The isolated, modified, human ADAMTS4 protein of claim 1, said modified ADAMTS4 protein comprising the amino acid sequence of SEQ ID NO:52.
27. (New) The isolated, modified, human ADAMTS4 protein of claim 1, said modified ADAMTS4 protein comprising the amino acid sequence of SEQ ID NO: 53.
28. (New) The isolated, modified, human ADAMTS4 protein of claim 1, said modified ADAMTS4 protein further comprising a TSP-1 domain.
29. (New) The isolated, modified, human ADAMTS4 protein of claim 1, said modified ADAMTS4 protein further comprising a cysteine-rich domain.
30. (New) The isolated, modified, human ADAMTS4 protein of claim 1, said modified ADAMTS4 protein further comprising an amino acid substitution at a glycosylation recognition site.
31. (New) The isolated, modified, human ADAMTS4 protein of claim 8, said modified ADAMTS4 protein being C-terminally truncated before the spacer domain.
32. (New) The isolated, modified, human ADAMTS4 protein of claim 31, said modified ADAMTS4 protein being C-terminally truncated before the cysteine rich domain.
33. (New) The isolated, modified, human ADAMTS4 protein of claim 32, said modified ADAMTS4 protein being C-terminally truncated before the TSP-1 motif.